

raised as a pedicle flap and draped over the cartilage framework. This is covered with a thick split-thickness skin graft. Because of its filmy and highly vascularized nature, the temporoparietal fascia both conforms beautifully to the cartilaginous foundation and serves as a reliable vascularized bed for both the cartilage and the overlying skin graft.

Brent has reported an extensive experience with this procedure and notes the operation to be extremely dependable with minimal complications. Other centers have had similar favorable results.

Repair of congenital contour ear deformities without tissue shortage in midchildhood or later is a difficult surgical procedure with mixed results. Recent reports by Matsuo and co-workers from Japan have shown the efficacy of correcting auricular deformities in the neonate by nonsurgical methods. Prominent ears, cup and lop ears and other abnormal shapes are corrected by combining molding and tape splints. This must be initiated immediately postpartum and held for about four weeks for the cartilage to be permanently reshaped. The procedure requires skilled application and careful monitoring to be effective and still avoid complications such as tissue necrosis.

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Suction-Assisted Lipectomy, Suction Lipectomy, Lipolysis and Lipexeresis

THE TERMS suction lipectomy, lipolysis and lipexeresis are applied to a surgical procedure commonly known as "fat suctioning." Over the past two or three years the lay press has extolled its virtues for the treatment of "cellulite."

Historically, this technique is an offshoot of a curettement technique through a small incision. First made popular by Schrudde of Cologne, West Germany, in the early 1960s, this technique consisted of using a small incision and curetting out, through a tunnel made with a long pair of scissors, the fat of primarily the hips, knees, thighs and ankles. Dr Schrudde currently uses a suction cannula.

The surgeon who deserves the credit for developing the suction cannula is Ulrich Kesselring of Lausanne, Switzerland. Beginning in the 1970s Dr Kesselring used a relatively large cannula with a large aperture for carving the fat. His results have been excellent with minimal complications.

In 1977 Yves-Gerard Illouz of Paris began using a smaller type suction cannula with a high vacuum suction of about 743 mm of mercury. With this technique,

large areas have been done with minimal complications such as seroma, hematoma and skin loss.

The technique is designed primarily for localized deformities such as the "riding britches syndrome," the "saddlebag deformity," bulging of the medial aspect of the knees and bulging of the abdomen, around the waistline in the flank and in the axilla and the chin. These areas have all responded well to the suction technique, the only scar being the puncture site, usually in one of the normal skin folds. The results in patients with good skin turgor and good fat density have been exceedingly gratifying.

Surprisingly, this procedure lends itself well to refinements and enhancement of normal aesthetic body contouring procedures such as abdominoplasty and thigh reduction by allowing a surgeon to minimize the extent of the dissection and length of the incision. In an abdominoplasty, deepening of the midline raphe by suction-assisted lipectomy gives a patient a more youthful appearance to the abdomen. The usual dog-ears in the traditional operation can often be eliminated without extending the incisions well over into the hip and flank area. We have also found it very useful in a face-lift where suctioning the fatty tissue of the neck is accomplished and in breast reduction where there is fullness of the axilla.

Suction-assisted lipectomy has been of further benefit in many of the reconstructive operations using free flaps or transposed flaps that have irregular contour fitting. There symmetry can be improved after the wounds have healed. It has also been useful in aspirating some areas that have been injected with liquid silicone. In addition, a number of lipomas have been removed successfully using a suction cannula.

Future research with this technique may offer some help to obese and diabetic patients. Currently suction-assisted lipectomy is a useful technique in repairing local deformities and in conjunction with traditional body-contouring operations to enhance their results.

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Noninvasive Monitoring of Tissue Viability

SIMPLE AND accurate methods for predicting tissue survival will be increasingly important as reconstructive procedures reach new horizons. Work in our laboratory and others has been improving noninvasive monitoring methods.

One notable method is the use of a surface fluorometer (Fluoroscan). Blue light is transmitted to the skin surface through a flexible fiberoptic pathway. Fluorescein molecules present in the skin emit yellow-green fluorescence that is carried back through the same fiberoptic pathway and converted to a digital readout. Graham and co-workers have shown that this instru-